## PART FIVE

## DEFERRED DESIGN AND CONSTRUCTION

## CHAPTER 16

## REQUIREMENTS FOR DEFERRED STRUCTURES

- 16-1. General. The purpose for allowing deferred design and construction is to provide as much time as possible to be devoted to the essential parts of the drainage systems necessary for completion so initial operation of the facility can take place within the M plus 180 day schedule. Early in the project planning phase, a master schedule of both engineering and construction must be developed. As a part of the scheduling activity, each element of the drainage system must be evaluated as to its essentialness for initial operation of the airfield, road, railroad, or other facility. Once the priority list of drainage structures has been established, deferrable structures can be determined. In general it is anticipated that deferrable parts of the drainage system are related to "down stream" portions of the system and will include such structures as headwalls, drop structures, check dams, chutes, stilling basins, and large volume open channels. The principles of design for large channels are basically the same as those presented for smaller drainage channels located adjacent to roadways and around airfields. Channel design is detailed in part three chapter 10.
- 16-2. Repairs. For the most part structures listed as potentially deferrable are erosion protection structures for use in controlling large quantities of water. By allowing drainage over the paths where these structures are to be built, a certain amount of damage may occur. The amount of erosion damage will depend upon how long the work is deferred and the severity of storms during that time. All damage must be repaired and grades brought to design requirements as part of structure construction. Close observation of the natural water courses and the location of any erosion occurring from structure deferment may alter the preliminary requirements for size and placement of protective and control structures.